

Appl. No. : 09/625,049
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AMENDMENTS TO THE CLAIMS

Claims 1-42. (Cancelled)

Claim 43. (Previously presented) A multipurpose heterodimeric antibody derivative, comprising CL and VL domains interacting with CH1 and VH domains, said antibody derivative further comprising two or more other molecules having at least one further purpose coupled to two or more of said domains by a peptide bond at a C-terminus of the heterodimeric antibody, and wherein the heterodimerization is driven by the heterotypic interaction between the CH1-VH combination and the CL-VL combination of immunoglobulin domains.

Claim 44. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein at least a first of the two or more other molecules is coupled to the CH1-VH chain and at least a second of the two or more other molecules is coupled to the CL-VL chain.

Claim 45. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein the two or more other molecules are selected from the group consisting of: sFv molecules, toxins, enzymes, hormones, cytokines and signaling molecules.

Claim 46. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43, wherein the coupling of two or more of said domains to the other molecules takes place via a linker.

Claim 47. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 46, wherein the linker is an amino acid chain of at least 1 amino acid.

Claim 48. (Cancelled)

Claim 49. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein a first other molecule is coupled to the C-terminal side of the CH1 domain and a second other molecule is coupled to the C-terminal side of the CL domain.

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Claim 50. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 49 wherein an sFv molecule is coupled to each of said CH1 and CL domains.

Claims 51-60. (Cancelled)

Claim 61. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein said antibody is a multivalent antibody.

Claim 62. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein said antibody is a bispecific antibody.

Claim 63. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein said antibody is a trispecific antibody.

Claim 64. (Previously presented) The multipurpose heterodimeric antibody derivative according to Claim 43 wherein said antibody is a multispecific antibody.

Claim 65. (Previously presented) A pharmaceutical preparation comprising the multipurpose antibody derivative of Claim 43 and a pharmaceutically acceptable diluent.

Claim 66. (Previously presented) A diagnostic preparation comprising multipurpose heterodimeric antibodies according to Claim 43.

Claim 67. (Previously presented) A multipurpose heterodimeric antibody derivative, comprising CL and VL domains interacting with CH1 and VH domains, wherein said CH1 domain is not linked to a hinge region, said antibody derivative further comprising two or more other molecules having at least one further purpose coupled to two or more of said domains by a peptide bond at a C-terminus of the heterodimeric antibody, and wherein the heterodimerization is driven by the heterotypic interaction between the CH1-VH combination and the CL-VL combination of immunoglobulin domains.

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Claim 68. (Currently amended) A multipurpose heterodimeric antibody derivative, ~~comprising CL and VL domains interacting with CH1 and VH domains, wherein said CH1 domain is not linked to a hinge region, said antibody derivative further comprising, according to claim 67, wherein the two or more other molecules are selected from the group consisting of: sFv molecules, toxins, enzymes, hormones, cytokines and signaling molecules coupled at an N-terminus of the molecules to two or more of said domains, and wherein the heterodimerization is driven by the heterotypic interaction between the CH1-VH combination and the CL-VL combination of immunoglobulin domains.~~

Claim 69. (Previously presented) A multipurpose heterodimeric antibody derivative, comprising CL and VL domains interacting with CH1 and VH domains, wherein said CH1 domain is not linked to a hinge region, said antibody derivative further comprising two or more other molecules having at least one further purpose coupled to two or more of said domains, wherein a first sFv molecule is coupled to the C-terminal side of the CH1 domain and a second sFv molecule is coupled to the C-terminal side of the CL domain, and wherein the heterodimerization is driven by the heterotypic interaction between the CH1-VH combination and the CL-VL combination of immunoglobulin domains.